

AVIATION

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Boeing seaplane (Navy PB1 type) tuning up at Lake Washington for Hawaiian flight

Photo International Newsreel

VOLUME
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SPECIAL FEATURES

NUMBER
7

HENRY FORD BUYS STOUT COMPANY
NAVY READY FOR HAWAIIAN FLIGHT
REGULATIONS FOR NATIONAL AIR RACES
EDITOR OF L'AERONAUTIQUE VISITS UNITED STATES

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SPEED WITH SAFETY



CURTISS GARAGE PICTON

Let the Operator Keep Faith with the Public

The public demand for the transportation of passengers, mails and express matter by the air route places a definite responsibility upon all those who are studying the problem of air operation.

There seems to be no question that companies now organized will receive the sympathetic support of the public in exact proportion to the judgment, experience and honesty which they exercise in their present operations. The greatest care must be used in organizing along practical and conservative lines. The success or failure of this enterprise will depend largely on two factors, personnel and equipment.

PERSONNEL. The personnel will be found available among that group of aviators produced by the war who are devoting their lives to the application of aviation to civilian needs.

EQUIPMENT. Obviously the Curtiss Aeroplane Company, as themselves designers or builders, must select their equipment from the best which the aircraft industry can supply.

The Curtiss Aeroplane & Motor Company, the oldest airplane and motor producer in the country, and the organization that has been the creator and constructive support of the best military airplanes and engines, has devoted its constant energy toward the commercial problem. It was the first company to design, build and test an airplane for the specific requirements of the Air Mail Service. The Curtiss Carrier Pigeon was at once accepted by the Post Office. The expert committee of the National Air Transport, Inc., after a confidential survey of available equipment, recommended the Curtiss Carrier Pigeon, and the company is now placed in order for a quantity of these machines.

An interdependence of parts with consequent reduction in cost of maintenance was an important factor in the selection of the Curtiss Pigeon by any company, in consideration of airplanes of one type and of one manufacturer. The use of the Curtiss Pigeon will make efficient and economical operation possible. The use by all pilots of one type, the standardization of interchangeable spare parts for general distribution from Curtiss stores throughout the country, and the reduced price of planes and parts through standardized quantity production will make the Curtiss Pigeon the standard commercial airplane. For "freedom lines" the Curtiss Link, a smaller prototype of the Pigeon, will shortly be available.

CURTISS AEROPLANE & MOTOR COMPANY, INC.

GARDEN CITY, N. Y.

BUFFALO, N. Y.



When Flying to America, Please Mention AVIATION

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AVIATION

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No. 7

Air Traffic

It cannot be denied that, as regard to air traffic, there has been a great change in the opinion of many here observers of the trend of aviation development. A year or two ago there seemed to be a very positive assurance that passenger carrying would be the most important reason of growth of air routes. The *Aeronautics* Airways and the New York Newport line in this country, and the many we have in Europe give promise of a hopeful growth on the form of traffic. It must be admitted that the results have been distinctly disappointing. Here, at present, it has become increasingly evident that passenger traffic is composed largely of those who are on a holiday and want to relieve an air trip among their other pleasures. In Europe, the large subsidies have enabled thousands of tourists to enjoy air or sea, or the regular intercity routes that have been assumed by governments, desiring to keep the air routes in operation for reasons that have not to do with the kind of traffic carried.

Of late, however, there seems to be a tendency among the more thoughtful students of air traffic to look to the carrying of mail and goods as the basis of air traffic and to regard passenger carrying as incidental, at best, and perhaps of a comparatively negligible character. The reason is not hard to discover. Mail and express matter is not bulky and we have a mass charge that is the least income-bearing amongst the operation of air lines. The volume of such traffic has shown a great increase on all lines. Passengers take up much more and require extra facilities both on board and at terminals. Then, too, they make a direct comparison with existing transportation facilities in respect to regularity of service, saving of time and cost. If there are not alternatives, the traffic reverts to the conditions. With mail and goods, these facilities are not so personal.

While it is in the early to make two positive assertions as to the future of air as a transportation vehicle as the airplane, it will be of the greatest importance to designers to take into account the apparent change in character of the traffic borne of air transport. Aircraft designed for passengers and for goods are very different in their requirements. The two types will make two very different lines. Airways will be glad to undertake in the most important decision by giving the views of those who have made a serious study of the two forms of traffic and their possibilities.

The Duration Record

TWO years ago the United States held positively all the important airplane records. Speed, altitude and duration were all ours, and all these records were made by airplanes owned and operated by the government. Thus the

French government decided that its commercial prestige was being menaced, but instead of building powerful military machines to break records, it put up substantial prizes which would go to the manufacturer who would bring a record back to France. Within a year practically every important record had returned to France or rather to the French which constitute the French aeronautical industry.

When the government holds all the records in its field in the United States, there is some danger that it may use the prestige thus obtained to have the main roadways of its service monopolized. When a contractor holds a world's record, it brings him a world wide reputation which may allow him to sell his products abroad. When the French firm holds a place capable of winning in the air for ten to five hours it can profit directly by its achievement. When the U. S. government has a 24 for thirty-six hours such prestige is secured but there are no direct sales results as far as the U. S. connections are concerned.

There are many who question over the practical value of records, especially of speed and altitude records, but duration records come into another class. To break an endurance and distance record, a plane must be strong enough to carry the great weight of fuel, it must be easy to fly, or else the pilots would have been exhausted, it must have a remarkably reliable power plant; it must have extra capacity to carry the great quantity of fuel necessary and finally it must carry a large load per horsepower which indicates economy in commercial operation. In short, although it may not be immediately apparent, a plane which establishes a new duration record with little exception is a practical machine for trans-oceanic work, whereas the planes which hold speed and altitude records must usually be changed before they become service types.

The New Air Service Uniform

A NOTICE long notice will have taken place toward the independence of aviators when the new uniforms are generally worn by the Air Service officers. It may be said to be a trivial matter to be stated about, but it will do much to distinguish the Air Service from the rest of the army. It is only to be mentioned here the Marine Corps uniforms have created a pride of service and distinctly favorable results to show how such a distinctive mark can affect a service. While the color desired—blue which is the natural element of the aviator—was not adopted, a conversion was made to the number of the flying officer.

Now that the Air Service officer can be distinguished from the other personnel of the Army, he will assume a new obligation. The public will judge the Air Service in a great extent by the appearance it presents from the manner of the new uniforms, and added distinction may be obtained with little effort by making the first impression favorable.

Ford Acquires Stout Company

Buys All Stock and Will Enlarge Production Facilities

The Ford Motor Co. has purchased the Great Plains Airplane Co. and will begin production of the model planes on a large scale this year, following under the old organization, it was announced last week.

For the preferred capital stock, the Ford paid at the rate of two for one, it was reported. The organization was \$100,000, but from \$95,000 to \$100,000 remained unchanged. The price paid by the Ford would therefore be \$190,000 to \$200,000.

The transfer, which involved 50,000 shares of common stock of one per value held by William B. Stout and his immediate associates. The amount paid for this stock has not been revealed.

According to an announcement appearing in the *Ford News*, a paper circulated among employees, the Ford Company purchased all stock and assets of the Stout company July 31. The plant was closed until Aug. 3 for inventories and on the latter date opened under the new management.

William B. Stout, the designer of the all metal plane, as well as all of the other men connected with the Stout company, have been retained by the Ford.

Hereafter the Ford company's financial interest in the Stout plant amounted to about \$12,000. Henry and Edith Ford each held \$1,000 in stock, as did William B. Stout, chief engineer of the Ford company.

On Ford Land

About 10 months ago, the Stout company accepted an offer from the Fords of some land in the Ford Airport for a factory site and began the manufacture of planes, which was put into service between Detroit, Cleveland and Chicago, carrying Ford freight.

The Fords have contributed the facilities of their organization to the further development of the plant and it has been thought generally that sooner or later they would acquire control of the company.

The announcement in the *Ford News* follows: "The Ford Motor Co. became a manufacturer of airplanes July 31 by purchasing all stock and assets of the Stout Metal Airplane Co. of the company."

The building of Stout all metal planes will hereafter be carried on by the Stout Metal Airplane division of the Ford Motor Co.

"Operations will be continued in the factory building at the Ford Airport, Dearborn, where four planes have already been built, and where new ones are under construction."

Stout Still in Charge

"Mr. Stout, who developed the present model after 15 years of experimentation and was a pioneer in building an all-metal monoplane of the thick wing type, remains in charge of plane construction, while the personnel of expert engineers and mechanics also have been retained."

The Stout plant and manufacturing equipment were purchased by the Ford company for the purpose of accelerating airplane development by having the work with the directed resources and experience of the Ford organization.

"The scope of experimental operations will be widened, while manufacture of the present type, which has proved highly successful in Ford air freight service will be continued on a larger scale."

"The Stout plant was closed down Friday, July 31, for inventory, and opened Monday, Aug. 3, under the new management."

"The announcement of the Stout Metal Airplane Co. with the Ford organization began less than a year ago when, on completion of the airplane factory building at the Ford airport, Oct. 15, 1924, Henry, Edith and William B. Stout contributed an initiative in the development of the Stout plane, of which only one of the present type thus existed."

"The Stout plant was selected as being the most highly developed type in America, and because it appeared to Mr. Ford as the most logical, dependable and safe."

Mr. Knerr Resigns from N.A.F. Staff

Announcement has been made of the resignation of Maxine C. Knerr as Chief Mechanical Engineer, C. & N. Ford Aircraft Division, Philadelphia, after seven and a half years in that capacity. Mr. Knerr will engage in professional practice as a consulting mechanical engineer specializing in heat treatment and metallurgy of steel and light alloys. He has recently joined the staff of the Henschel Tube Co., members steel tube manufacturers of Bethlehem, Pa., as a consulting expert.



FINANCIAL, Engineering and Management—Henry Ford, Wm. B. Stout and Edith Ford—A statement that the three owners have accepted a policy.

Regulations for the National Air Races

To Be Held at Mitchel Field, L. I., Oct. 8, 9 and 10

The rules and entry books for the National Air Races to be held at Mitchel Field, Long Island, New York, will be put out and can be obtained from the New York 1825 Air Show, Inc. of 30 East 42 St., New York, N. Y. As has been previously announced the races will be held at Mitchel Field, Garden City, L. I., on Oct. 8, 9, and 10. There is going to be a summary of the chief technical conditions of the various racing events, as contained in the first edition of the regulations. The races are sanctioned by the National Aeronautic Association and are held under the auspices of the Local Chapter of the N.A.A. while the races are conducted under the rules of the Federation Aeronautique Internationale, F.A.I.

"On to New York" Race

Event No. 1-A.

The contest for the trophy presented by the New York Chapter of the N.A.A. is open for citizens only and will be held from Sept. 27 to Oct. 1.

Total Prize: \$12,000. First Prize, \$5,000; Second Prize, \$1,000; Third Prize, \$500; Fourth Prize, \$300; Fifth Prize, \$200; Sixth Prize, \$100; Seventh Prize, \$50; Eighth Prize, \$25.

The conditions of contest are as follows:

Competing planes must be flown from a point 200 mi. or more (by air line) from Mitchel Field, L. I.

The contest is open to any make or type of aircraft. The first meet will start at one hour after Sept. 27, 1925. The starting time will be taken when the pilot delivers his Log of Flight at the Contest Committee Headquarters, Mitchel Field, L. I.

All pilots competing in this contest must land at Mitchel Field and deliver Log of Flight after 5:00 p. m., Oct. 3, and before midnight, Oct. 7.

In view of the wide variety of planes whose arrival here qualified their entrance into the contest, the Contest Committee will have an Indian and record plane according to the following four classes:

Average Speed Based on Total elapsed Time—Average speed will be determined by dividing the air distance between points of departure and Mitchel Field, L. I., by total elapsed time.

The maximum number of points to be awarded on average speed is 100. For example, A plane making the flight at an average speed of 150 mi./hr. will be awarded 100 points, and for each mile per hour less than 150 mi./hr., it will be awarded one less point.

Distance Covered—In order that pilots flying from distances greater than 500 mi. may not be penalized by having to land and take on extra fuel with the resultant reduction in average speed, hence, above a specified time, the following points will be awarded on basis of air distance covered.

Planes starting at a point less than 500 mi. from Mitchel Field, L. I., will be awarded no points for distance.

Planes will be awarded 1 point for each additional 100 mi. above the 500 mi. awarded.

Air line distance will be measured on Contest Committee map.

Passengers Carried—Two points are allowed for each passenger carried with a maximum of ten passengers or six hundred pounds. Passengers must average 140 lb. each.

Excess Nonpassenger—At the rate of 4 in. displacement per pound carried—A maximum of 200 points will be awarded to the plane completing the flight propelled by an engine of 50 in. in displacement or less. A passenger will be valued for every 4 in. of increase in the lifting capacity to that of an engine of 5,000 cu. in. displacement will only receive 5 points and engines of more than 1,000 cu. in. displacement will not receive any points.

The in. in displacement will be that obtained from the Mitchel Field report for the units of engine used.

Points will be awarded on the total number of points received by contestants.

In case of a tie, the winner will be determined by lot.

Free-for-All Race for Two-Seater Low Horsepower Airplanes (Citizens only)

Event No. 1.

To be held Thursday, Oct. 8 at 11 a. m.
Total Prize, \$2,500. First Prize, \$1,000; Second Prize, \$500; Third Prize, \$300; Fourth Prize, \$250; Fifth Prize, \$125; Sixth Prize, \$100.

This race shall be contested by airplanes with engines having a total horse displacement of 310 cu. in. or less.

The conditions of the contest are as follows: Engines must have a prime displacement of 250 cu. in. or less. (Type sanctioned by the Engineering Division of the U. S. Air Service at Mitchel Field will be accepted as standard.)

At the time of entry the entrant must supply the Contest Committee with a statement giving the horse, stroke, and displacement of the engine to be used in the race, this statement to be properly certified before a notary public. The Contest Committee reserves the right to check the measurements of the engine offered and to demand the removal of a cylinder or cylinders for this purpose. The decision of the Contest Committee will be final.

All airplanes must carry a total load of 340 lb., evenly distributed on two cockpits, this load to consist of pilot and one passenger, with sufficient ballast, if necessary, to bring their weight up to the required amount. It is suggested by the Contest Committee that all contestants carry ballast in bins of passenger, in order to eliminate hazard in this respect. Under no circumstances may open cockpits be carried.

This distance to be flown at 190 mi., 30 turns around a closed course of 5 mi., starting at Mitchel Field, then out to first turning point, thence north to second turning point, and return to Mitchel point.

Free-for-All Race for Two, Three or Four-place Airplanes (Citizens only)

Event No. 2

To be held Thursday, Oct. 8 at 1:30 p. m.
Total Prize, \$3,500. First Prize, \$1,500; Second Prize, \$800; Third Prize, \$400; Fourth Prize, \$250; Fifth Prize, \$150; Sixth Prize, \$100.

This trophy shall be competed for by airplanes with engines having a total prime displacement of 500 cu. in. or less, and shall become the permanent possession of the entrant of the winning plane.

The conditions of the contest are as follows: Engines must have a prime displacement of 450 cu. in. or less. (Type sanctioned by the Engineering Division of the U. S. Air Service.)

At the time of entry the entrant must supply the Contest Committee with a statement giving the horse, stroke, and cubic engine displacement of the engine to be used in the race, this statement to be properly certified before a notary public. The Contest Committee reserves the right to check the measurements of any engine offered and to demand the removal of a cylinder for this purpose. The decision of the Contest Committee will be final.

All airplanes must carry a total weight total of 390 lb., evenly distributed on two cockpits, this load to consist of pilot and one passenger, with sufficient ballast, if necessary, to bring their weight up to the required amount. It is suggested by the Contest Committee that all contestants carry ballast in bins of passenger, in order to eliminate hazard in

wings with wash-in or wash-out built into the wings, or arrangement other than a straight wing, the model shall be proportionately similar to the actual wing used and have an area of approximately 54 sq. in.

The stalling speed shall be calculated from the maximum lift coefficient on the model. No correction such as speed scale, aspect ratios, incidence effect, streamlines, etc., will be allowed.

All wing models must be tested under uniform conditions at a speed of 40 m.p.h. as well as under selected by the Contest Committee of the National Aeronautic Association. As

they may turn and return to the field, and land in their part of the field assigned for landing, and so on change shall not cross the course on finish line. Failing a model. "Any competitor who has failed to have a spike properly set velocity constant on the circuit provided he makes a complete turn of the oval and does this continues his trip in the same direction." (F.A.S. Rules, Art. 115.)

No protest shall be considered unless presented in writing to the Contest Committee within twenty-four hours after the finish of the race. (F.A.S. Rules 75, 76, 96.) (Appendix, see



R. A. A. Photo

Junker plane with Junker J-23 by engine which participated in the Royal Germany Contest

"offset" would tunnel will be designated in each country making entry.

(6) If, after the airplane has been weighed in accordance with these regulations, and checked against the model characteristics submitted, the theoretical stalling speed shall be found in terms of 75 m.p.h., the engine will be positioned in the rear at a rate of 151 sq. in. for each mile to have the stalling speed in its terms of 75 m.p.h. The permitted theoretical stalling speed of 75 m.p.h. shall not be exceeded by more than 3 per cent without total disqualification.

General Regulations

The following regulations apply to all events.

No pilot may take part who does not possess the Fédération Aéronautique Internationale Amateur Certificate and must receive license issued by the Contest Committee of the National Aeronautic Association. Certificate and license must be shown to race officials on demand.

Any contestant breaking the rules of the race or subsequent ones which may be used for writing, map, open communication of the judges, be disqualified.

All pilots must take care of the race predetermined course and must not cross or attempt to cross a finish of another plane during the "take-off." A plane available in the air must hold its altitude and true course. A plane attempting a slower plane shall not pass or attempt to pass between that plane and a turning point. The pilot of the faster plane having passed a slower plane on its left or approximately the same altitude, shall round the oval turning point or point at a radius greater than 300 ft. The slower plane is approximately 300 ft. in the rear. All pilots must be in the left.

Pilots shall pass outside all turning points and in plain view of officials stationed at each point, and at an altitude of not more than 200 ft. "Contestants in winning races, must not completely outside the pylons, being there always on the same hand which will be indicated by the rules." After crossing the finishing line all planes shall continue on their course until they have obtained the altitude of 1,000 ft., then

F.A.S. Rules, Article 115-117.)

Each plane shall have a number assigned to it by the Contest Committee, which shall be painted on the bottom surface of lower wings, and on each side of the fuselage, view of the wing, in characters as large and clear as possible. It shall have no other numbers or lettering over twice such as is light.

Farman Plane Flies 45 Hr. 11 Min.

On Aug. 7 at 5:34 p. m. the French pilot Drouhin and Lindsay set out to break the world duration and distance record. They headed off 9 p. m. on Aug. 8, having sustained in the air 45 hr. 11 min. 58 sec. without refueling. The machine was a single motorized Farman which took off with 14,300 lb. of fuel and oil on board.

The flight was in the neighborhood of Etampes and for 41 hr. 22 min. the plane flew over a wooded course of 60 mi., during which they covered 2,712 mi. The battle between Drouhin and Lindsay in 1923 was, but in the French aviators' combined their flight with the airplane for nearly another two hours they surpassed the 72½ record by a considerable amount.

The record established is a tremendous feat over the previous world record of 37 hr. 50 min. set by Drouhin and Cuyot last year. For a number of years previous to this the record for duration had been unbroken comparatively slowly. In 1908 a record of 34 hr. 10 min. was made by a Farman, in 1922 of 32 hr. 19 min. made by a 24-hr. to 1918 of 34 hr. 10 min. by Drouhin, who flew a Farman Galka, and in 1923 Kells and Drouhin took it back to America by flying a Fokker for 34 hr. 4 min.

The pilots chose to turn during the flight and said they could have sustained further had that been possible. The distance covered was nearly enough to have carried them from Paris in New York so that the accomplishment of such a flight now becomes a matter of matter skill and luck.

N.A.T. To Begin Service with Curtiss Planes

Coffin Gives Reasons for Selection and Outlines Policy

Several outstanding highlights on the National Air Transport line, today for 11 Curtiss Carrier Pigeon airplanes and 10 Liberty engines, mentioned in the July 13 issue of AVIATION, appeared in a statement issued by Howard Coffin following a meeting of directors at which this decision was reached.

Mr. Coffin stated that the Technical Committee, consisting of Charles L. Looman, president of the Western Aeronautical Corp., Phoenix, N. J., and C. T. Loder, president of the D.T.C. Co., Philadelphia, Pa., which furnished the flight lights for the air mail route had made a survey of the performance and rating of the various types of commercial planes. In the selection of the Curtiss plane, safety consideration was given to maneuverability, pilot's visibility and delivery date.

"The Curtiss Pigeon plane," said Mr. Coffin, "was designed with a special view to the requirements of the night or day service, consideration also being given to the difficulty involved in negotiating the Allegheny Mountains in fog and darkness. The plane is equipped with one 400 hp. Liberty engine, has a speed of 110 m.p.h., a ceiling of 10,000 ft., a landing speed of 10 m.p.h. and a cargo capacity of 1,000 lb. with postage freight or mail."

"The plane is entirely self-lighting and will set up in the fuselage and has in front of him the wings compartment which is very sturdy built and completely waterproofed. His feet and all vision of stage lights is unobstructed."

"His top and bottom wings are constructed so as to give the rubber streamer and elevators, which reduce to a minimum the number of spare parts needed to be kept in stock."

"The handling is of the welded steel tube type now practically standard in America."

"The Curtiss Pigeon," continued Mr. Coffin, "has been making test flights at night during the past thirty days and its performance indicates unusual dependability and safety to the pilot. No forced landings were experienced during these test flights, but landings were purposely made in

some of the emergency landing fields created in order to demonstrate the maneuverability of the airplane in isolated spots."

"Very shortly," said Mr. Coffin, "the National Air Transport will submit all research measurements to the United States to give consideration to the design of new equipment which will be purchased later. A Technical Committee of experienced engineers and pilots will be appointed to make a survey of our requirements so revealed during the first two or three months of operation. A digest of the findings of this committee will be placed in the hands of such manufacturers, together with an invitation for him to submit designs which in his judgment best fit the requirements revealed by flying experience under the actual route itself. The National Air Transport does not plan to manufacture flying equipment. It will maintain at all times the Western Union Policy to be overall manufacturers in the United States."

According to Mr. Coffin, a survey has also been made during the past thirty days, for the National Air Transport of the European commercial situation and the tendency there toward the design of multi-motor planes.

"The report which we have just received from Europe," said Mr. Coffin, "indicates that before the end of the present year, our European commercial air transport companies will have in operation or in test, airplanes equipped with three engines."

"The theory of the three-engined airplane is that two engines will sustain the load, the third engine being kept in reserve, taking, ready to replace one of the other engines in case of engine failure. We are unable at this time to compare our opinion as to the probable merits of this new European practice, but shall watch it with much interest, hoping to gain valuable experience thereby. It is reasonable, however, that the three-engined plane will increase the postage freight carrying capacity which in turn should help decrease the expense of operation per pound of freight carried."



Curtiss Carrier Pigeon and plane 10 of which have been ordered by the National Air Transport Inc. for the New York-Chicago night freight service (Shelburne March 21 Arrived)

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PUBLISHER'S NEWS LETTER

Occasionally, there breaks into the genuine reaction of a publishing office a ray of bright sunshine in the form of an interesting visitor. Such a pleasant guest passed over the latter part of July when we were blessed by the opportunity of making the acquaintance of M. Henri Bonche, Editor of our highly esteemed French contemporary L'Aéronautique. He had been spending the last few months in making a tour around the world visiting India, Japan and China. After his arrival at San Francisco, he traveled to all the important aeronautical centers in the country. Captain Bonche served as the French army until he was severely wounded. Later, he joined the French Air Force and served with distinction, making a specialty of photographic reconnaissance. Shortly after the War he was offered the director of L'Aéronautique, one of France's leading aviation journals, which he accepted and has built it up to the remarkable position that it occupies today. His tour around the world was to make the personal acquaintance of the aeronautical people of other countries so that he would have a personal impression at close range of the leaders and fasteners of which he will write.

Of course not the least interesting part of the interview was the discussion of publishing problems and policies. It was most comforting to learn that AVIATION has not been alone in its opposition to government controlled publications, and that in France as in England, the air service does not compete with civilian publications. It was also surprising to be informed that the circulation of L'Aéronautique was practically the same as AVIATION. Coming at this date after similar information from The Aeroplane, we are led to the conclusion that there are about a dozen number of persons interested in the more specialized phases of aviation and this group reads the papers that are devoted for those who want their aeronautical news handled in an informative course. Equally important was the news that the French aircraft manufacturers are making a definite step for advertising in the aeronautical papers and allocated it to the several publications, using full pages to color a great part of the time.

Perhaps one of the most interesting observations made by Captain Bonche was the difference in the methods in handling news here and in France. There according to his account, great news is held in great technical information and not make a public spectacle of the facts. At the Beauvais Cap races last year there were not more than five hundred persons present and those came by invitation. Making money out of races was neither attempted nor encouraged. In fact, as was pointed out to him, there were no airplane races held

in France that could be compared with our meets. If the service held competitions they are to improve the service and the public is invited to witness the actual fire of charges. As France is again experiencing practically all the world's records, it may be time soon to give heed to the methods in vogue there as compared to ours. The governments abroad do not appropriate anywhere from \$200,000 to two or three times that sum for the construction of racing planes. Not do they have the advantages of government maintenance or pinning. The incentive, as we believe in the long run will be found to be the best here also, is pride of technical excellence and reputation.

Without underestimating the very great interest in aviation that he observed in Japan, he brought about a very amiable impression of the status of the Japanese air development. He had no jump tales of thousands of airplanes being built as a warlike gesture. On the contrary he seemed to feel that while great progress was being made technically through contracts with French, English and German firms that the absence of fundamental industries and new materials was a handicap that would be difficult to overcome. While there were only airplanes we received and may be very wide of the exact figures of our status, it is of the greatest interest to get such views from an observing and informed source.

Comparisons as to the methods of supplying aviation aircraft and then were equally interesting. There, the inspection of aircraft is left to a private company, much the same as in England. Pilots are given their licenses by the government but the government has no such license as is proposed by the Windows Bill for the Department of Commerce. Whether or not regulations has had any effect on the privately owned aircraft, it is practically nonexistent as on such a small scale that it is negligible. This tendency has been to create monopolies, as a few men have built up operating aircraft. Here, all the larger manufacturers and operators are in favor of government regulation but the smaller firms and the individual owners are not so successful in their opinions as to the advantages.

Before closing this fragmentary letter, it is our great pleasure to extend the personal opinion that was freely expressed by all who had the opportunity of meeting the Editor of L'Aéronautique. Summed up, it was felt that such interchange of visits did much to bring about a better understanding of the problems that confront each country from the aviation standpoint, particularly when they bring such a well informed and courteous guest—L.D.C.

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